Montana Regional Innovation Grant

Core Leadership Group

Industry Cluster "White Paper"

Restoration/Remediation Cluster

This group chose to look specifically at the Build Environment, Natural Resources and Roads, Bridges, Water/Sewer as a possible Restoration Industry Cluster. Based on the suggested outline from the facilitators, the following is the result of our research.

Crucial Entities

Several entities will be required to participate to create a successful industry cluster. Our research indicates that involvement will reach across the private sector to state and local government, down to individual citizens and neighborhoods. Municipal Public Works, State DOT, in-state and out-of-state contractors, Mills, Foresters, Loggers, Watershed Restoration Firms, Engineering firms, Architects, Environmental Firms, Specialized Labor, Non-profits, Educators, Universities and Colleges, Tribal Governments, Consultants, Neighborhoods and Concerned Citizens, are some of the most crucial entities needed.

High Impact Organizations

Specifically, some high impact organizations will be: Tricon Mill, Pyramid Lumber, Smurfit Stone, Envirocon, Tetra Tech, Salish-Kootenai Tribe, MCS Environmental, University of Montana, Flathead Valley Community College, Salish Kootenai College, PBSJ, The Nature Conservancy, Municipal Public Works, Dept of Transportation, US Green Building Council, Missoula Downtown Association, Urban Renewal Districts.

Condition of the Industry

Currently Restoration in the Build Environment appears to be an emerging thing. Based on the research done, it appears that there are several plans in the works, but that work has yet to begin. One of the best examples of this is the Greater

Missoula Downtown Master Plan which incorporates many green building ideas and historic preservation. The planned revitalization will require not only green building practices but infrastructure improvements and remediation of water, sewer, upgrading roads and bridges.

The Natural Resource Restoration Industry cluster is composed of many different types of businesses and organizations, making it somewhat difficult to give an overall condition of the industry. In fact, because restoration jobs aren't tracked as such, it's quite difficult to even assess the current restoration economy though there is a current effort within Montana's Department of Labor and Office of Restoration to work on this. However, we do know that across Montana there is a high level of need in all sectors, including forest and watershed (stream, riparian) restoration, agricultural land restoration, mine reclamation and dam removal. Based on interviews with several environmental consultants in western Montana, it appears that environmental consulting companies are increasing in number every year. Along with that increase is a greater need for a trained workforce to carry out the restoration work. However, all of these sectors are affected by lack of funding, regulatory obstacles and/or lack of ability to sell the by-products of restoration (timber).

Currently, the timber market is severely depressed, in large part due to low housing starts and the overall national economic downturn. This has put a real strain on Montana's timber mills and logging operations. At the same time, the need for restoration forestry and forest thinning is great due in part to past management activities and fire suppression. This leads us to the question – what do we do with small diameter trees when there is little to no market right now for studs or other traditional wood products? This question can lead to innovation in the market, including various types of small biomass facilities, specialty wood products, and construction out of small diameter logs, just to name a few alternative uses.

Other aspects of forest and watershed restoration work, including weed treatment, road decommissioning, culvert work, stream and riparian work and revegetation are in high demand but often lack the needed funding. The same holds true for mine reclamation. Aside from funding, another obstacle to needed work are the regulatory and policy constraints that often make it

difficult for companies, particularly small or new companies, to take on restoration projects. These will be discussed in more detail below.

Finally, the purchase of Plum Creek lands by the Nature Conservancy and the Trust for Public Lands also provides a lot of opportunity for the restoration industry. There will continue to be timber harvest from these lands, but there will also be restoration needs including road and weed work. Because many of these lands will in turn be purchased by the state and the U.S. Forest Service, coordination between public and private entities will be essential in assuring that this restoration work goes to Montana companies and workers.

The growth opportunities in the natural resource restoration industry abound. Restoration is a new industry cluster and thus ripe for new technologies and innovation. With every restoration project we learn how to do this work more effectively. With our educational system, multitude of restoration projects and government support of the restoration economy, Montana can be a national and international leader in restoration research, technologies and on-the-ground application.

Critical Infrastructure

The infrastructure needed for the Natural Resources Restoration industry to thrive includes, but is not limited to: mills, biomass facilities, people with skill sets to do the work, good transportation system, good communication system, business incubators to help promote innovation and entrepreneurs, a strong educational system, and leadership from the public and private sectors.

Much of the restoration or remediation of Water, Sewer, Roads and Bridges actually would qualify as infrastructure in and of itself. In order for any long term or large scale remediation or restoration to take place, roads will need to improved and maintained; sewer will need to be upgraded to handle the increase of workers and the inevitable increase in population.

The Build Environment is similarly dependent on good roads and public works to become a successful piece of the industry cluster.

Current/Required Skill Sets

Because the restoration field is so diverse, the skill sets run the gamut from tree planters to heavy equipment operators to ecologists and engineers and administrative staff. While the following is a list of current skills required, it is necessary to understand that if the industry cluster moves from theory to reality that there will be an increased need for these skilled people.

Ecologists (restoration, wetlands, riparian), Biologists (fisheries, wildlife, botanists, weed specialists, etc), Hydrologists, Engineers, GIS and Mapping, Foresters, Soil scientists, Heavy equipment operators, Loggers, Tree Planters, Restoration Technicians, Planners, Landscape architects, Clerical (permitting, proposal writing, bookkeeping), Engineers, Construction, Electrical, Concrete, Specialized Labor, specific Green Building Consultants.

Gaps in the Industry Cluster

Better leadership within government and the private sector on restoration issues – leaders and workers who have a holistic perspective of landscape issues and socioeconomic considerations. The business side of the natural resource restoration economy is growing but lacks good coordination and direction at all levels. People (and institutions) who can integrate the socioeconomic considerations of restoration with the ecological ones. There needs to be a broader public understanding of how community health and natural resource health are so closely tied. Restoration ecologists who understand the big picture, Entrepreneurs; entities, perhaps through the non-profit sector, who can promote and improve Montana's restoration economy through such components as education and marketing.

Since public works/infrastructure activities require such specialized workers and large scale projects many out-of-state contractors bid and win contracts for million dollar-plus projects in Montana. Part of the problem lies with how the state defines bonding ability, which ultimately makes it harder for local contractors to win large-scales projects. While municipal public works entities try to divide projects into smaller entities allowing local contractors to get in on the work, they believe it would benefit local companies if the state would broaden the work environment and make bonding availability easier to obtain for local contractors. Another gaps is engaging the public more in public works projects.

Without public input, many plans have ultimately met with little success. The biggest gap of all is certainly funding. It seems certain that many entities within this industry cluster are collectively holding their breath, waiting for the new administration to make good on its promise of infrastructure funding.

With the Build Environment a considerable gap is the initial increased cost of building green. Due to the often increased costs initially associated with building green, and the issues this region has regarding affordability, it would be important that state and local governments recognize the long term benefit with monetary assistance. During the 2009 Legislative Session, the Montana Builders Industry Association is pursuing legislation for a green building tax credit. This would help to offset the additional cost to builders and homeowners hoping to "go green." It could also help to spur the industry if housing trust fund monies can be appropriated at retrofitting older buildings with green features to help keep energy costs low.

One other barrier that must be considered for any consultant based in the seven county region is the inadequate availability of affordable air carriers. If this problem could be remedied in just one of the cities in this region it would help to promote this type of Build industry.